OIPE IAP41 JUL 21 2006 PATENT & TRADEMARK OFFICE

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application No.	10/060,579
Filing Date	January 29, 2002
First Named Inventor	D. Matthew Karas
Art Unit	2654
Examiner Name	Shortledge, Thomas E.
Total Number of Pages in This Submission	28
Attorney Docket Number	5827P002

ENCLOSURES *(check all that apply)*

- [X] Fee Transmittal Form
 - [X] Fee Attached
- [] Amendment / Response
 - [] After Final
 - [] Affidavits/declaration(s)
- [] Extension of Time Request
- [] Express Abandonment Request
- [] Information Disclosure Statement
 - [] PTO/SB/08
- [] Certified Copy of Priority Document(s)
- [] Response to Missing Parts/ Incomplete Application
 - [] Basic Filing Fee
 - [] Declaration/POA
 - [] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [] Drawing(s)
- [] Licensing-related Papers
- [] Petition
- [] Petition to Convert a Provisional Application
- [] Power of Attorney, Revocation Change of Correspondence Address
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- [] Appeal Communication to Board of Appeals and Interferences
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- [] Proprietary Information
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

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Signature	J. T. Holman
Date	7/17/06

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FEE TRANSMITTAL for FY 2005

Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT	($)	500.00

Complete if Known	
Application Number	10/060,579
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☐ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

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FEE CALCULATION

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
2053	130	2053	130	Non-English specification	
1251	120	2251	60	Extension for reply within first month	
1252	450	2252	225	Extension for reply within second month	
1253	1,020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1,080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	500.00
1403	1,000	2403	500	Request for oral hearing	
1451	1,510	2451	1,510	Petition to institute a public use proceeding	
1460	130	2460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
1809	790	1809	395	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR § 1.129(b))	
				Other fee (specify) _____	
				SUBTOTAL (2)	($) 500.00

SUBMITTED BY Complete (if applicable)

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Based on PTO/SB/17 (12-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 12/15/2004.
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OIPE IAP41 JUL 21 2006 PATENT & TRADEMARK OFFICE

Attorney's Docket No.: 5827P002 Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

OIPE

In Re Application of:

D. Matthew Karas et al.

Application No.: 10/060,579

Filed: January 29, 2002

Art Unit: 2626

Examiner: Shortledge, Thomas E.

For: TIME ORDERED INDEXING OF AUDIO DATA

Confirmation No.: 7691

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APPEAL BRIEF
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

This is an appeal to the Board of Patent Appeals and Interferences from the decision of the Examiner of Group 2626, dated June 8, 2006, which finally objected to Claims 4, 19, 24, and 29-31, and rejected Claims 1-3, 5-18, 21-23, and 25-28 in the above-identified application. This Appeal Brief is hereby submitted pursuant to 37 C.F.R. § 41.37(a).

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I. REAL PARTY IN INTEREST

The real party in interest is the assignee of the full interest in the invention, Dremedia Limited, 4th Floor 63, St. James Street, London, SW1A 1L4, England.

II. RELATED APPEALS AND INTERFERENCES

To the best of Applicants' knowledge, there are no appeals or interferences related to the present appeal that will directly affect, be directly affected by, or have a bearing on the Board's decision in the instant appeal.

III. STATUS OF CLAIMS

Claims 4, 19, 24, and 29-31 stand objected to as depending from a rejected independent claim, but would be allowable if rewritten in independent form to include all intervening claim limitations.

Claims 1-3, 5-12, 15-18, 20-23, and 25-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application No. 6,990,448 to Charlesworth et al. (hereinafter "Charlesworth") in view of U.S. Patent Application No. 6,917,912 to Chang et al. (hereinafter "Chang").

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Charlesworth in view of Chang, and further in view of U.S. Patent Application No. 6,665,644 to Kanevsky et al. (hereinafter "Kanevsky").

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Charlesworth in view of Chang, and further in view of Lucas (VoiceXML for Web-based distributed conversational applications) (hereinafter "Lucas").

IV. STATUS OF AMENDMENTS

A response was filed on May 15, 2006, subsequent to the Final Office Action mailed March 15, 2006. The response included an amendment to claim 25. The Advisory Action mailed June 8, 2006, indicates that the proposed amendment would not be entered for purposes of Appeal. Thus, the claims in Appendix reflect the claims as they stood in the response mailed November 18, 2005, to the non-final Office Action mailed September 2, 2005.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Applicants' invention, as claimed in claims 1-31, is directed to extracting information from one or more streams of information and more particularly to identifying audio characteristics. The present section of this Appeal Brief is set forth to comply with the requirements of 37 C.F.R. § 41.37(c)(1)(v) and is not intended to limit claims 1-31 in any way. Exemplary implementations of the limitations of independent claims 1, 5, 21, 23, and 25 are described below.

Independent claim 1 relates to a method in which attributes, including one or more types of accents and one or more types of human languages from an audio information stream, are identified **402**. Specification, [0071] and Figure 4. Each identified attribute from the audio information stream is encoded **404** into a time ordered index **408**. Specification, [0072] and [0074] and Figure 4. Each of the identified attributes shares a common time reference **406**. Specification, [0073] and Figure 4. Attribute filters **108, 109, 110, 112, 114** detect specific attributes from the information stream input **102** data. Each attribute filter **108, 109, 110, 112, 114** then identifies the detected attribute. Once the attribute is identified by a given attribute filter **108, 109, 110, 112, 114**, the identified attribute is encoded into a computer language. See Specification, [0016] and Figure 1. Different human language models are compared at approximately the same time to generate an integrated time ordered index. A human language and accent attribute filter consists of language models **302, 304, 306, 308** that receive the same audio information stream **310** and compare the output **312** from the different human language models **302, 304, 306, 308**, at approximately the same time, to generate an integrated time ordered index. Specification, [0049] and Figure 3.

Independent claim 5 relates to a machine-readable storage medium that stores instructions, which when executed by a machine, cause the machine to perform certain operations. Attribute filters **108, 109, 110, 112, 114** detect specific attributes from the information stream input **102** data. Each attribute filter **108, 109, 110, 112, 114** then identifies the detected attribute. Once the attribute is identified by a given attribute filter **108, 109, 110, 112, 114**, the identified attribute is encoded into a computer language. See Specification, [0016] and Figure 1. Each of the identified attributes shares a common time reference **406**. Specification, [0073] and Figure 4. Different human language models are compared at

approximately the same time to generate an integrated time ordered index. A human language and accent attribute filter consists of language models **302, 304, 306, 308** that receive the same audio information stream **310** and compare the output **312** from the different human language models **302, 304, 306, 308** at approximately the same time to generate an integrated time ordered index. Specification, [0049] and Figure 3.

Independent claim 21 relates to an apparatus which includes means for identifying attributes including one or more types of accents and one or more types of human languages from a multi-party audio information stream. Attribute filters **108, 109, 110, 112, 114** detect specific attributes from the information stream input **102** data. Each attribute filter **108, 109, 110, 112, 114** then identifies the detected attribute. Specification, [0016] and Figure 1. The apparatus of claim 21 also includes means for encoding each identified attribute from the audio information stream into a time ordered index, each of the identified attributes sharing a common time reference. Once the attribute is identified by a given attribute filter **108, 109, 110, 112, 114**, the identified attribute is encoded into a computer language. Specification, [0016] and Figure 1. An index control module **104** supplies a time ordered indication to each attribute filter **108, 109, 110, 112, 114** to establish a common time reference. Specification, [0074] and Figures 1, 4. The apparatus of claim 21 also includes means for comparing results from different human language models at approximately the same time to generate an integrated time ordered index of the identified attributes. A human language and accent attribute filter consists of language models **302, 304, 306, 308** that receive the same audio information stream **310** and compare the output **312** from the different human language models **302, 304, 306, 308** at approximately the same time to generate an integrated time ordered index. Specification, [0049] and Figure 3. The foregoing structures are examples of the structures described in the specification which are associated with the functions recited in the limitations of the claim. However, these exemplary structures are not limiting, and other structures described in the specification or equivalent structures also may be associated with the functions recited in the limitations of the claim. Ultimately, the scope of each claim is defined by the language of the claim itself, and not by the exemplary structures identified herein.

Independent claims 23 relates to a machine-readable storage medium that stores instructions, which when executed by a machine, cause the machine to perform certain operations. The operations include converting spoken words in an information stream to written

text and generating a separate encoded file for every word. The software engine **100** performs may perform these operations. Specification, [0013] and Figure 1. The information stream contains audio information. Each encoded file shares a common time reference.

Independent claim 25 relates to an apparatus in which a software engine **100** has attribute filters **108, 109, 110, 112, 114** to detect attributes from a multi-party audio information stream. Specification, [0013] and Figure 1. The attribute filters **108, 109, 110, 112, 114** compare results from different human language models **302, 304, 306, 308** to identify the attributes. Specification, [0049] and Figure 3. The attribute filters **108, 109, 110, 112, 114** assign a time ordered indication with each of the identified attributes. Specification, [0073] and Figure 4. The software engine **100** has an index control module **104** to facilitate an integrated time order indexing of the identified attributes. Specification, [0049]. Claim 25 also claims a computer readable storage medium to store the software engine **100**. Specification, [0080].

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Whether claims 1-12 and 15-31 are patentable under 35 U.S.C. § 103(a) over the combination of Charlesworth and Chang.

II. Whether claim 13 is patentable under 35 U.S.C. § 103(a) over the combination of Charlesworth and Chang.

III. Whether claims 14 is patentable under 35 U.S.C. § 103(a) over the combination of Charlesworth and Chang.

VII. ARGUMENT

For the purposes of this appeal, the claims do not stand and fall together.

Claims 1-12 and 15-22 are argued together as Group I.A. The corresponding arguments below specifically address the rejection of independent claim 1, as representative of the group.

Claims 23-24 are argued together as Group I.B. The arguments corresponding below specifically address the rejection of independent claim 23, as representative of the group.

Claims 25-31 are argued together as Group I.C. The arguments corresponding below specifically address the rejection of independent claim 25, as representative of the group.

Claim 13 is argued separately from independent claim 5, from which it depends, because it is rejected under a separate ground of rejection.

Claim 14 is argued separately from independent claim 5, from which it depends, because it is rejected under a separate ground of rejection.

However, these groupings are used merely to provide brevity and clarity to the following arguments. These groupings do not imply a particular relationship between any of the claims. The scope of any given claim is defined only by its limitations and is independent of the interpretation of the other claims.

I. Claims 1-12 and 15-31 are patentable over the combination of Charlesworth and Chang.

I.A.1. Claims 1-12 and 15-22 are patentable over the combination of Charlesworth and Chang because the combination of Charlesworth and Chang does not teach or suggest all of the limitations of the claims.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Charlesworth and Chang. Applicants respectfully submit that claim 1 is patentable over the combination of the cited references because the combination does not teach or suggest all of the limitations of the claim.

To establish a prima facie case of obviousness, the prior art references must teach or suggest all the claim limitations. Manual of Patent Examining Procedure (M.P.E.P.) § 2142, citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 1 recites:

> A method, comprising:
>
> identifying attributes including one or more types of accents and one or more types of human languages from a multi-party audio information stream;
>
> encoding each identified attribute from the audio information stream into a time ordered index, each of the identified attributes sharing a common time reference; and
>
> **comparing results from different human language models** at approximately the same time to generate an integrated time ordered index of the identified attributes.
>
> (Emphasis added).

In support of the rejection, the Office Action mailed March 15, 2006, states, in part:

> As to claims 1, 5, 21, and 25, Charlesworth et al. teach:

identifying attributes including one or more types of accents and one or more types of human languages from a multi-party audio information stream (identifying attributes from a communication stream, involving more than one speakers, where for each language, the speaker's language, accent, dialect and phonetic set are identified, col. 9, lines 38-49);

encoding each identified attribute from the audio information stream into a time ordered index, each of the identified attributes sharing a common time reference (storing the identified attributes identified in annotation data, within a header, (col. 9, lines 43-49), where the header includes a time index which associates the location of the blocks of annotation data within the memory, col. 5, lines 52-58);

comparing results at approximately the same time to generate an integrated time ordered index of the identified attributes (identifying the language of the speaker, col. 5, lines 62-63, and creating time index associating the location of the blocks that have that attribute, col. 5, lines 50-67).

...

Charlesworth et al. do not explicitly teach comparing results from different human language models.

However, **Chang et al. teach comparing the detecting phonemes against a language model, to find the correct language model**, (col. 5, lines 19-23).

Office Action, March 15 2006, pp. 3-4 (*sic* all) (emphasis added).

Applicants respectfully disagree with the Examiner's characterization of the references because the cited combination fails to teach or suggest all of the limitations of the claim. In particular, Charlesworth and Chang, either alone or in combination, do not teach or suggest comparing results from different human language models.

The Office Action correctly recognizes that Charlesworth does not teach comparing results from different human language models. Office Action, 3/15/2006, p. 4. Charlesworth is directed to a database of annotation data related to data files. Charlesworth, Abstract. The annotation data includes phoneme and word lattice data structures. Charlesworth, col. 5, lines 2-6. In other words, the annotation data includes several phonemes and multiple words. See Charlesworth, Fig. 4b (which shows a phoneme and word lattice). The annotation data is stored in the format shown in col. 5, lines 18-38. The blocks of annotation data are arranged in blocks of equal time duration. Charlesworth, col. 5, lines 56-58. Charlesworth is silent regarding comparing results from different human language models. If a reference is silent regarding the existence of a limitation, that reference cannot teach or disclose the limitation. Consequently, Charlesworth does not teach or suggest comparing results from different human language models.

Chang does not cure this lack of disclosure by Charlesworth, as Chang also does not teach comparing results from different human language models. The Office Action incorrectly characterizes Chang as teaching comparing the detecting phonemes against a language model, to find the correct language model. Office Action, 3/15/2006, p. 4. Chang is directed to speech recognition systems for detecting and tracking pitch. Chang, Abstract. An audio analyzer includes an audio analysis engine to implement audio analysis such as speech recognition. Chang, col. 5, lines 4-12. The audio analysis engine includes a syllable recognition module to analyze received audio content to detect phonemes. Chang, col. 5, lines 17-20. The syllable recognition module compares the detected phonemes against a language model in an attempt to detect the content of the audio input. Chang, col. 5, lines 20-22. However, Chang does not teach comparing the phonemes against a language model in order to find a correct language model. This characterization, presented by the Office Action, is inaccurate because Chang never discusses finding a "correct" language model. Rather, Chang merely teaches using the phonemes and a language model to perform speech recognition.

Moreover, even if Chang were to teach comparing the phonemes against a language model in order to find a correct language model, as purported by the Office Action, Chang nonetheless fails to teach comparing results from different human language models. In fact, Chang never teaches or suggests the possibility of using different language models. If a reference is silent regarding the existence of a limitation, that reference cannot teach or disclose the limitation. Consequently, Chang does not teach or suggest comparing results from different human language models.

In contrast, claim 1 recites "comparing results from different human language models." For the reasons stated above, Charlesworth and Chang, either alone or in combination, fail to teach or suggest all of the limitations of the claim. In particular, the cited references do not teach or suggest comparing results from different human language models. Given that the cited references fail to teach or suggest all of the limitations of the claim, Applicants respectfully submit that claim 1 is patentable over the cited references. Accordingly, Applicants request that the rejection of claim 1 under 35 U.S.C. § 103(a) based on Charlesworth and Chang be withdrawn.

Each of independent claims 5 and 21 includes a limitation that is similar to the limitation of claim 1. Given that the cited references fail to disclose at least the described limitations,

Applicants respectfully submit that independent claims 5 and 21 are each patentable over the cited references. Furthermore, each of independent claims 5 and 21 may be patentable over the cited references for additional reasons. Accordingly, Applicants request that the rejections of claims 5 and 21 under 35 U.S.C. § 103(a) be withdrawn.

Given that claims 2-4, 6-12, 15-20, and 22 depend from independent claims 1, 5, and 21, which are patentable over the cited references, Applicants respectfully submit that dependent claims 2-4, 6-12, 15-20, and 22 are also patentable over the cited references. Accordingly, Applicants request that the rejection of claims 2-3, 6-12, 15-18, 20, and 22 under 35 U.S.C. § 103(a) and the objection to claims 4 and 19 be withdrawn.

I.A.2. Claims 1-12 and 15-22 are patentable over the combination of Charlesworth and Chang because there is no motivation or suggestion to combine Charlesworth and Chang.

Even if the combination of Charlesworth and Chang were to disclose all of the limitations of the claim, claim 1 is patentable over the combination of Charlesworth and Chang because the Office Action does not provide a proper motivation to combine the references. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine the reference teachings. M.P.E.P. § 2142. In particular, the prior art must suggest the desirability of the claimed invention. M.P.E.P. § 2143.01.

In support of the rejection, the Office Action mailed March 15, 2006, states, in part:

> Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the methods of Charlesworth et al. with the language models et al. of Chang et al. to increase the ability of the system to **detect the content of the verbal communication, based on a phoneme processing,** as taught by Chang et al. (col. 5, lines 21-24).

Office Action, March 15 2006, pp. 3-4 (emphasis added).

The Office Action does not provide a proper motivation to combine the references. The Office Action merely restates what Chang already teaches, namely using phonemes to perform speech recognition. Chang, col. 5, lines 17-22. Although the Office Action asserts that combining Charlesworth and Chang would increase the ability to detect the content of verbal communication, based on phoneme processing, the Office Action does not explain how the proposed combination might provide increased performance. In other words, the Office Action

fails to explain how using the annotation database of Charlesworth in combination with the pitch tracking system of Chang would improve the performance of the pitch tracking system already disclosed by Chang. Therefore, the Office Action fails to provide a proper motivation to combine the references.

Given that the Office Action fails to establish a motivation or suggestion to combine the cited references, Applicants respectfully submit that claim 1 is patentable over the combination of cited references. Accordingly, Applicants request that the rejection of claim 1 under 35 U.S.C. § 103(a) based on Charlesworth and Chang be withdrawn.

Given that the Office Action relies on the same motivation to combine the references with respect to claims 5 and 21 as provided in the rejection of claim 1, Applicants respectfully submit that independent claims 5 and 21 are each patentable over the cited references. Furthermore, each of independent claims 5 and 21 may be patentable over the cited references for additional reasons. Accordingly, Applicants request that the rejections of claims 5 and 21 under 35 U.S.C. § 103(a) be withdrawn.

Given that claims 2-4, 6-12, 15-20, and 22 depend from independent claims 1, 5, and 21, which are patentable over the cited references, Applicants respectfully submit that dependent claims 2-4, 6-12, 15-20, and 22 are also patentable over the cited references. Accordingly, Applicants request that the rejection of claims 2-3, 6-12, 15-18, 20, and 22 under 35 U.S.C. § 103(a) and the objection to claims 4 and 19 be withdrawn.

I.B.1. Claims 23-24 are patentable over the combination of Charlesworth and Chang because the combination of Charlesworth and Chang does not teach or suggest all of the limitations of the claims.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Charlesworth and Chang. Applicants respectfully submit that claim 23 is patentable over the combination of the cited references because the combination does not teach or suggest all of the limitations of the claim.

To establish a *prima facie* case of obviousness, the prior art references must teach or suggest all the claim limitations. M.P.E.P. § 2142 citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim 23 recites:

> A machine-readable storage medium that stores instructions, which when executed by a machine, cause the machine to perform operations comprising:
>
> converting spoken words in an information stream to written text, the information stream containing audio information; and
>
> **generating a separate encoded file for every word**, wherein each encoded file shares a common time reference.

(Emphasis added).

In support of the rejection, the Office Action mailed March 15, 2006, states, in part:

> As to claim 23, Charlesworth et al. teach:
>
> converting spoken words in an information stream to written text, the information stream containing audio information (transcription unit for the inputted audio stream, col. 11, lines 25-30);
>
> generating a separate encoded file for every word wherein each encoded file shares a common time reference (each of the words are stored and a time index is created for them, col. 5, lines 18-38).

Office Action, March 15, 2006, p. 7.

Applicants respectfully disagree with the Examiner's characterization of the references because the cited combination fails to teach or suggest all of the limitations of the claim. In particular, Charlesworth and Chang, either alone or in combination, do not teach or suggest generating a separate encoded file for every word.

Charlesworth does not teach or suggest generating a separate encoded file for every word. Charlesworth is directed to a database of annotation data related to data files. Charlesworth, Abstract. The annotation data includes phoneme and word lattice data structures. Charlesworth, col. 5, lines 2-6. In other words, the annotation data includes several phonemes and multiple words. Charlesworth, col. 5, lines 2-6; Fig. 4b. The annotation data is stored in the format shown in col. 5, lines 18-38. The blocks of annotation data are arranged in blocks of equal time duration. Charlesworth, col. 5, lines 56-58. Given that the annotation data is arranged in blocks of time and includes several words within each block, Charlesworth fails to teach or suggest generating a separate encoded file for every word.

Chang does not cure this lack of disclosure by Charlesworth. In fact, the Office Action does not assert that Chang discloses this limitation. In any case, Chang merely describes parsing the received content into frames. Chang, col. 5, lines 33-35. An exemplary frame size is 10 milliseconds. Chang, col. 6, lines 2-5. Moreover, Chang fails to present any correlation between the frame size and a word detected from the received content. Chang is silent regarding

generating a separate encoded file for every word. If a reference is silent regarding the existence of a limitation, that reference cannot teach or disclose the limitation. Therefore, Chang does not teach or suggest generating a separate encoded file for every word.

In contrast, claim 23 recites "generating a separate encoded file for every word." For the reasons stated above, Charlesworth and Chang, either alone or in combination, fail to teach or suggest all of the limitations of the claim. In particular, the cited references do not teach or suggest generating a separate encoded file for every word. Given that the cited references fail to teach or suggest all of the limitations of the claim, Applicants respectfully submit that claim 23 is patentable over the cited references. Accordingly, Applicants request that the rejection of claim 23 under 35 U.S.C. § 103(a) be withdrawn.

Given that claim 24 depends from independent claim 23, which is patentable over the cited references, Applicants respectfully submit that dependent claim 24 is also patentable over the cited references. Accordingly, Applicants request that the rejection of claim 24 under 35 U.S.C. § 103(a) be withdrawn.

I.B.2. Claims 23-24 are patentable over the combination of Charlesworth and Chang because there is no motivation or suggestion to combine Charlesworth and Chang.

Even if the combination of Charlesworth and Chang were to disclose all of the limitations of the claim, claim 23 is patentable over the combination of Charlesworth and Chang because the Office Action does not provide a proper motivation to combine the references. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine the reference teachings. M.P.E.P. § 2142. In particular, the prior art must suggest the desirability of the claimed invention. M.P.E.P. § 2143.01.

The Office Action does not provide a proper motivation to combine the references. The Office Action is silent regarding any motivation to combine Charlesworth and Chang with regard to claim 23. Therefore, the Office Action fails to provide a proper motivation to combine the references.

Given that the Office Action fails to establish a motivation or suggestion to combine the cited references, Applicants respectfully submit that claim 23 is patentable over the combination

of cited references. Accordingly, Applicants request that the rejection of claim 23 under 35 U.S.C. § 103(a) based on Charlesworth and Chang be withdrawn.

Given that claim 24 depends from independent claim 23, which is patentable over the cited references, Applicants respectfully submit that dependent claim 24 is also patentable over the cited references. Accordingly, Applicants request that the rejection of claim 24 under 35 U.S.C. § 103(a) be withdrawn.

I.C.1. Claims 25-31 are patentable over the combination of Charlesworth and Chang because there is no motivation or suggestion to combine Charlesworth and Chang.

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Charlesworth and Chang. Applicants respectfully submit that claim 25 is patentable over the combination of the cited references because the Office Action does not provide a proper motivation to combine the references.

As a preliminary matter, a response was filed on May 15, 2006, subsequent to the Final Office Action mailed March 15, 2006. The response included an amendment to claim 25. The Advisory Action mailed June 8, 2006, indicates that the proposed amendment would not be entered for purposes of Appeal. However, Applicant respectfully submits that the limitation "compare results from different human language models" does not raise new issues that would require further consideration and a new search. Similar, although not necessarily identical, limitations are found in other claims. The limitation is also disclosed throughout the specification. See Specification [0014]-[0016], [0049]. Thus, the proposed amendment to claim 25 does not raise new issues. Nevertheless, Applicant respectfully submits that claim 25 is patentable over the cited references even if the proposed amendment is not entered.

Claim 25 recites:

> An apparatus comprising:
>
> a software engine having one or more attribute filters to detect attributes from a multi-party audio information stream, identify the attributes, and assign a time ordered indication with each of the identified attributes, the software engine having an index control module to facilitate an integrated time order indexing of the identified attributes; and
>
> a computer readable storage medium to store the software engine.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine the reference teachings. M.P.E.P. § 2142. In particular, the prior art must suggest the desirability of the claimed invention. M.P.E.P. § 2143.01.

The Office Action does not provide a proper motivation to combine the references. The Office Action merely restates what Chang already teaches, namely using phonemes to perform speech recognition. Chang, col. 5, lines 17-22. Although the Office Action asserts that combining Charlesworth and Chang would increase the ability to detect the content of verbal communication, based on phoneme processing, the Office Action does not explain how the proposed combination might provide increased performance. In other words, the Office Action fails to explain how using the annotation database of Charlesworth in combination with the pitch tracking system of Chang would improve the performance of the pitch tracking system already disclosed by Chang. Therefore, the Office Action fails to provide a proper motivation to combine the references.

Given that the Office Action fails to establish a motivation or suggestion to combine the cited references, Applicants respectfully submit that claim 25 is patentable over the combination of cited references. Accordingly, Applicants request that the rejection of claim 25 under 35 U.S.C. § 103(a) based on Charlesworth and Chang be withdrawn.

Given that claims 26-31 depend from independent claim 25, which is patentable over the cited references, Applicants respectfully submit that dependent claims 26-31 are also patentable over the cited references. Accordingly, Applicants request that the rejection of claims 26-28 under 35 U.S.C. § 103(a) and the objection to claims 29-31 be withdrawn.

II. Claim 13 is patentable over the combination of Charlesworth and Chang with Kanevsky.

II.A.1. Claim 13 is patentable over the combination of Charlesworth and Chang with Kanevsky because the combination of Charlesworth and Chang with Kanevsky does not teach or suggest all of the limitations of the claims.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Charlesworth in view of Chang and further in view of Kanevsky. Claim 13 depends from and includes the limitations of independent claim 5. For the reasons discussed above (see sections

I.A and I.B), Charlesworth and/or Chang do not disclose all the limitations of claim 5. Kanevsky is also silent regarding those limitations. Kanevsky merely discloses a method for collecting data associated with the voice of a voice system user. Kanevsky, abstract. Kanevsky is silent regarding comparing results from different human language models. If a reference is silent regarding the existence of a limitation, that reference cannot teach or disclose the limitation. Consequently, Kanevsky does not teach or suggest comparing results from different human language models and does not disclose all the limitations of claim 5. Therefore, Applicants respectfully assert that claim 13, as depending from independent claim 5, is patentable over Charlesworth in view of Chang and further in view of Kanevsky. Accordingly, Applicants request that the rejection of claim 13 under 35 U.S.C. § 103(a) based on Charlesworth, Chang, and Kanevsky be withdrawn.

II.A.2. Claim 13 is patentable over the combination of Charlesworth and Chang with Kanevsky because there is no motivation or suggestion to combine Charlesworth and Chang with Kanevsky.

Moreover, Applicants respectfully submit that claim 13 is patentable over the cited references because the Office Action does not provide a proper motivation to combine the references. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine the reference teachings. M.P.E.P. § 2142. In particular, the prior art must suggest the desirability of the claimed invention. M.P.E.P. § 2143.01.

In support of the rejection, the Office Action mailed March 15, 2006, states, in part:

> Therefore, it would have been obvious to one of ordinary skill in the art, to combine the teachings of Charlesworth et al. with the discrete recognition of Kanevsky et al. **to properly identify the user's dialect**, as taught by Kanevsky et al. (col. 4, lines 32-35).

Office Action, March 15, 2006, p. 8 (emphasis added).

Applicants respectfully disagree with the Examiner's characterization of the references because the Office Action does not provide proper motivation to combine the references. The Office Action merely restates what Kanevsky already teaches, namely using discrete word recognition to identify a user's dialect. Kanevsky, col. 4, lines 31-51. Although the Office Action asserts that combining Charlesworth and Chang with Kanevsky would increase the ability

to properly identify a user's dialect, the Office Action does not explain how the proposed combination might provide increased performance. In other words, the Office Action fails to explain how using the annotation database of Charlesworth and the pitch tracking system of Chang in combination with the discrete word identification of Kanevsky would improve the performance of the discrete word identification already disclosed by Kanevsky. Therefore, the Office Action fails to provide a proper motivation to combine the references.

Given that the Office Action fails to establish a motivation or suggestion to combine the cited references, Applicants respectfully submit that claim 13 is patentable over the combination of cited references. Accordingly, Applicants request that the rejection of claim 13 under 35 U.S.C. § 103(a) based on Charlesworth, Chang, and Kanevsky be withdrawn.

III. Claim 14 is patentable over the combination of Charlesworth and Chang with Lucas.

III.A.1. Claim 14 is patentable over the combination of Charlesworth and Chang with Lucas because the combination of Charlesworth and Chang with Lucas does not teach or suggest all of the limitations of the claims.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Charlesworth in view of Chang and further in view of Lucas. Claim 14 depends from and includes the limitations of independent claim 5. For the reasons discussed above (see sections I.A and I.B), Charlesworth and/or Chang do not disclose all the limitations of claim 5. Lucas is also silent regarding those limitations. Lucas merely discloses a method for encoding audio via XML. Lucas, p. 1. Lucas is silent regarding comparing results from different human language models. If a reference is silent regarding the existence of a limitation, that reference cannot teach or disclose the limitation. Consequently, Lucas does not teach or suggest comparing results from different human language models and does not disclose all the limitations of claim 5. Therefore, Applicants respectfully assert that claim 14, as depending from independent claim 5, is patentable over Charlesworth in view of Chang and further in view of Lucas. Accordingly, Applicants request that the rejection of claim 14 under 35 U.S.C. § 103(a) based on Charlesworth, Chang, and Lucas be withdrawn.

III.A.2. Claim 14 is patentable over the combination of Charlesworth and Chang with Lucas because there is no motivation or suggestion to combine Charlesworth and Chang with Lucas.

Moreover, Applicants respectfully submit that claim 14 is patentable over the cited references because the Office Action does not provide a proper motivation to combine the references. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine the reference teachings. M.P.E.P. § 2142. In particular, the prior art must suggest the desirability of the claimed invention. M.P.E.P. § 2143.01.

In support of the rejection, the Office Action mailed March 15, 2006, states, in part:

> Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Charlesworth et al. with the methods of Lucas **to bring the power of Web development and content delivery to voice-response applications**, as taught by Lucas (page 1).

Office Action, March 15, 2006, pp. 8-9 (emphasis added).

Applicants respectfully disagree with the Examiner's characterization of the references because the Office Action does not provide proper motivation to combine the references. The Office Action merely restates what Lucas already teaches, namely encoding audio via XML to bring the power of Web development and content delivery to voice-response applications. Lucas, pp. 1-2. Although the Office Action asserts that combining Charlesworth and Chang with Lucas would facilitate the growth of voice-response applications, the Office Action does not explain how the proposed combination might stimulate that growth. In other words, the Office Action fails to explain how using the annotation database of Charlesworth and the pitch tracking system of Chang in combination with the audio encoding via XML of Lucas would help bring the power of Web development and content delivery to voice-response applications, which is already disclosed by Lucas. Therefore, the Office Action fails to provide a proper motivation to combine the references.

Given that the Office Action fails to establish a motivation or suggestion to combine the cited references, Applicants respectfully submit that claim 14 is patentable over the combination of cited references. Accordingly, Applicants request that the rejection of claim 14 under 35 U.S.C. § 103(a) based on Charlesworth, Chang, and Lucas be withdrawn.

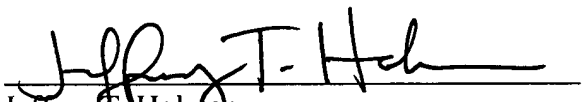
CONCLUSION

For the reasons stated above, the objections to claims 4, 19, 24, and 29-31, and rejection of claims 1-3, 5-18, 21-23, and 25-28 should be withdrawn. Appellant respectfully requests that the Board reverse the rejections of the claims under 35 U.S.C. § 103(a), and since there are no remaining grounds of rejection to be overcome, direct the Examiner to enter a Notice of Allowance for claims 1-31. If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. (Previously Presented) A method, comprising:

identifying attributes including one or more types of accents and one or more types of human languages from a multi-party audio information stream;

encoding each identified attribute from the audio information stream into a time ordered index, each of the identified attributes sharing a common time reference; and

comparing results from different human language models at approximately the same time to generate an integrated time ordered index of the identified attributes.

2. (Original) The method of claim 1, further comprising:

comparing confidence ratings of the different human language models.

3. (Original) The method of claim 1, further comprising:

generating a transcript including each spoken word, wherein each spoken word shares the common time reference.

4. (Original) The method of claim 1, further comprising:

triggering an event to occur upon an identification of unique voice characteristics of a speaker in less than five seconds.

5. (Previously Presented) A machine-readable storage medium that stores instructions, which when executed by a machine, cause the machine to perform operations comprising:

identifying attributes including one or more types of accents and one or more types of human languages from a multi-party audio information stream;

encoding each identified attribute from the audio information stream into a time ordered index, each of the identified attributes sharing a common time reference;

comparing results from different human language models at approximately the same time to generate an integrated time ordered index of the identified attributes.

6. (Original) The article of manufacture of claim 5, further comprising instructions which cause the machine to perform further operations comprising:

generating a query on one or more of the identified attributes in the time ordered indexed.

7. (Previously Presented) The article of manufacture of claim 6, further comprising instructions which cause the machine to perform further operations comprising:

correlating a first identified attribute of the information stream with a second identified attribute having a similar time code.

8. (Original) The article of manufacture of claim 5, wherein the audio information stream comes from an unstructured information source.

9. (Original) The article of manufacture of claim 5, wherein the audio information stream includes audio-visual data.

10. (Original) The article of manufacture of claim 5, wherein the audio information stream includes speech data.

11. (Original) The article of manufacture of claim 5, wherein at least one of the identified attributes further comprises a change of accent.

12. (Original) The article of manufacture of claim 5, wherein at least one of the identified attributes further comprises a change of human language.

13. (Original) The article of manufacture of claim 5, wherein at least one of the identified attributes further comprises a discrete spoken word.

14. (Original) The article of manufacture of claim 5, wherein the identified attributes are encoded via extensible markup language.

15. (Original) The article of manufacture of claim 5, wherein the time ordered index includes a start time and a duration in which each identified attribute was conveyed.

16. (Original) The article of manufacture of claim 5, wherein the common time reference comprises a time indication.

17. (Original) The article of manufacture of claim 5, wherein the common time reference comprises a frame count.

18. (Original) The article of manufacture of claim 5, further comprising instructions which cause the machine to perform further operations comprising:

correlating a first identified attribute of the information stream with a second identified attribute having a similar time code.

19. (Original) The article of manufacture of claim 18, wherein the similar time code comprises the first identified attribute possessing a start time approximately the same as the second identified attribute or an overlapping of the durations associated with the first identified and the second identified attribute.

20. (Original) The article of manufacture of claim 5, wherein the integrated time ordered index includes data from the different human language models.

21. (Previously Presented) An apparatus, comprising:

means for identifying attributes including one or more types of accents and one or more types of human languages from a multi-party audio information stream;

means for encoding each identified attribute from the audio information stream into a time ordered index, each of the identified attributes sharing a common time reference; and

means for comparing results from different human language models at approximately the same time to generate an integrated time ordered index of the identified attributes.

22. (Original) The apparatus of claim 21, further comprising:

means for generating a query on the one or more identified attributes in the time ordered indexed.

23. (Previously Presented) A machine-readable storage medium that stores instructions, which when executed by a machine, cause the machine to perform operations comprising:

converting spoken words in an information stream to written text, the information stream containing audio information; and

generating a separate encoded file for every word, wherein each encoded file shares a common time reference.

24. (Original) The article of manufacture of claim 23, further comprising instructions which cause the machine to perform further operations comprising:

generating a link to relevant material based upon the spoken words and synchronizing a display of the link in less than five seconds from analyzing the information stream.

25. (Previously Presented) An apparatus comprising:

a software engine having one or more attribute filters to detect attributes from a multi-party audio information stream, identify the attributes, and assign a time ordered indication with each of the identified attributes, the software engine having an index control module to facilitate an integrated time order indexing of the identified attributes; and

a computer readable storage medium to store the software engine.

26. (Original) The apparatus of claim 25, wherein the time ordered indication comprises a start time and a duration in which the attribute was conveyed.

27. (Original) The apparatus of claim 25, wherein the one or more attribute filters generate a time ordered index of the audio information stream in real time.

28. (Original) The apparatus of claim 25, wherein the audio information stream passes through the one or more attribute filters a single time.

29. (Original) The apparatus of claim 25, further comprising:

a manipulation module to perform operations on a first set of attributes in order to manipulate a second set of attributes.

30. (Previously Presented) The apparatus of claim 29, wherein the first set of attributes compromises a section of transcribed text and the second set of attributes comprises video images having approximately the same time ordered indications as the transcribed text.

31. (Previously Presented) The apparatus of claim 25, further comprising:

a triggering and synchronization module to dynamically trigger a link and synchronize the appearance of the link based upon a transcribed text from the information stream.

IX. EVIDENCE APPENDIX

There is no evidence submitted with this Appeal Brief.

X. RELATED PROCEEDINGS APPENDIX

To the best of Applicants' knowledge, there are no appeals or interferences related to the present appeal that will directly affect, be directly affected by, or have a bearing on the Board's decision in the instant appeal.